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hinges **42, 44** between the rear edge **48** of the door **10** and the edge of the frame **14**. It comprises a strip **54** of flexible or semi-rigid material of small thickness extending over the whole height of the door **10** and fixed to the frame **14** via one of its ends by a fixing part **56**. During pivoting of the door **10**, the strip **54** is animated with a relative sliding movement being deformed angularly in the zone to be protected and remaining appreciably parallel with respect to the adjacent face **58** of the door **10**. Sliding of the strip **54** is achieved by means of a guiding part **60** securedly affixed to the face **58** of the door **10** so as to arrange a pre-determined clearance. The strip **54** has a high mechanical strength and is made for example from a plastic material with a polystyrene, polyurethane, chlorinated polymer or other base.

The fixing part **66** of the strip **54** is advantageously rounded over the whole height thereof so as to perform preliminary bending of said curved surface at a predetermined angle. In various exemplary embodiments, the predetermined angle is between 40° and 90°. Such an arrangement enables the bending stress of the strip **54** when the door **10** is opened and closed to be reduced, by preventing the strip **54** from moving away from the face **58** of the door **10**.

The strip **54** and the plate **64** extend right down to the bottom of the door **10** so as to achieve total protection.

The vertical edge of the plate **64** opposite the hinges **42, 44** is secured to the door **10** by assembly elements **86** arranged along the vertical edge so as to form a continuous guiding slot with a closed bottom for housing the sliding part of the strip **54**, which strip is then hidden throughout the sliding travel. It is also possible to integrate the guiding slot directly in the door **10**.

According to another type of door, it is clear that the strip **54** can be fixed to the movable door **10** and the guiding part **60**, be secured to the fixed frame **14**.

What is claimed is:

1. A mechanical safety device for a door pivotally mounted on a frame, the device comprising protection means for preventing access to a vertical gap between the

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frame and an edge of the door on a side where hinges are located and a strip opposite said protection means cooperating with a guiding part to allow a relative sliding movement of a free end of the strip when the door moves relative to the frame, the guiding part being adapted to be fixed to the door by assembly elements, wherein

a fixing part for fixing the strip onto the frame comprises means for rounding the strip over the length thereof so as to perform a preliminary bending of the strip at a predetermined angle,

the guiding part comprises a plate made of rigid plastic material for housing the strip, the guiding part also including a closed bottom, and

the strip and the plate are adapted to extend to the bottom of the door.

2. The mechanical safety device according to claim 1, wherein the strip is made of plastic material and is adapted to remain appreciably parallel to the door within the guiding part.

3. The mechanical safety device according to claim 1, wherein the protection means comprises a tubular element adapted to be fitted in the gap in vertical alignment with the hinges to form a non-deformable static shield, the tubular element having a diameter close to that of each hinge.

4. The mechanical safety device according to claim 3, wherein the tubular element is provided with a flat fixing tab adapted to be attached to one of the frame and the door.

5. The mechanical safety device according to claim 4, wherein the tubular element and the fixing tab are made of one of a rigid plastic material and flexible plastic material.

6. The mechanical safety device according to claim 1, wherein the predetermined angle is between 40° and 90°.

7. The mechanical safety device according to claim 1, wherein the strip is made of a flexible material.

8. The mechanical safety device according to claim 1, wherein the strip is made of a semi-rigid material.

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